

MARSHALL STAR

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Feb. 4, 2010

Marshall Director Lightfoot discusses NASA budget proposal

By Sanda Martel

Marshall Space Flight Center Director Robert Lightfoot held an all-hands meeting with the work force Feb. 1 to discuss NASA's portion of the fiscal year 2011 President's budget submission to Congress. It followed a news conference earlier in the day by NASA Administrator Charles Bolden, Deputy Administrator Lori Garver and Chief Financial Officer Beth Robinson.

Speaking to a capacity audience in Building 4200's Morris Auditorium, Lightfoot said that while specifics about Marshall's role in the proposed new agency projects are forthcoming, he wanted to meet with the work force to provide an overview of the budget proposal.

"We'll be learning more in coming days about Marshall's role in new projects in the budget, and I plan to hold additional all-hands meetings to talk about new work that will be assigned to the Marshall Center," said Lightfoot.

"The agency is committed to the type of work the

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Marshall Center Director Robert Lightfoot speaks to the work force Feb. 1 about NASA's proposed fiscal 2011 budget.

Marshall engineers feel pride, satisfaction in final station hardware

By Janet Anderson and Sanda Martel

When space shuttle Endeavour launches Feb. 7 on the STS-130 mission to the International Space Station, teams at the Marshall Space Flight Center will have cause to feel pride and satisfaction.

The Node Integration Office has provided technical assistance and coordination on the Node 3, also known as Tranquility, that is to be carried to the space station on Endeavour's mission. Tranquility is the last of three space station nodes to be launched. The nodes are interconnecting elements between the various pressurized modules on the space station, allowing passage of crew members and equipment to other station elements. The nodes also provide vital functions and resources for the crew members and equipment.

The office's members are part of a team that also includes the European Space Agency; European Space Agency contractor Thales Alenia of Spazio, Italy; The Boeing Company of Chicago; the International Space Station systems team at the Johnson Space Center in Houston; and the Kennedy Space Center, Fla., payload processing team. The Node 3 project is managed by the International Space Station Vehicle Office at Johnson.

"It's very exciting to see hardware that we have worked on for the past several years delivered to station," said Jimmy

For more about the STS-130 mission, please see page 2.

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Shuttle Endeavour to deliver 'a room with a view'

By Sanda Martel

NASA managers are targeting Feb. 7 for the launch of space shuttle Endeavour on a 13-day mission to the International Space Station. Liftoff is scheduled at 3:39 a.m. CST, from Kennedy Space Center, Fla. The shuttle will arrive at the station Feb. 9.

The mission kicks off the final year of scheduled shuttle flights, with five missions planned through September.

The launch date was announced Jan. 27 at the conclusion of the Flight Readiness Review, a meeting held prior to each shuttle mission. The review allows NASA managers and engineers to determine whether the shuttle's complex array of equipment, support systems and procedures are ready for flight, and to assess any risks associated with the mission. The review also determines the readiness of the flight crew and payloads.

Commander George Zamka will lead the STS-130 mission. Terry Virts will serve as the pilot. Mission specialists are Nicholas Patrick, Robert Behnken, Stephen Robinson and Kathryn Hire. Virts will be making his first trip to space.

Shuttle Endeavour and its crew will deliver to the space station a third connecting module, the Italian-built Tranquility node and the seven-windowed Cupola, which will be used as a control room for robotics. It features six windows around its sides and another in the center that will



STS-130 crew members show off a mission patch after a training session in the Johnson Space Center's Space Vehicle Mockup Facility.

provide a panoramic view of Earth, celestial objects and visiting spacecraft. The mission will feature three spacewalks.

For more information about the STS-130 mission, visit http://www.nasa.gov/mission_pages/shuttle/main/index.html.

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis and Communications.

Budget *Continued from page 1*

Marshall Center does. The skills and capabilities of Marshall workers will be required to accomplish the new work."

The budget proposal includes cancellation of the Constellation Program, including the Ares I and Ares V rockets and Altair lunar lander – all being developed at the Marshall Center.

"I want to acknowledge all of you and the work you've done the past four or five years on Constellation," Lightfoot said. "We will press forward and I have pride and confidence in all of you for the work you've done and will continue to do."

The agency's proposed budget includes an increase of \$6 billion over five years beginning in fiscal 2011. It includes completing flights on the space shuttle manifest in 2010, but allows any mission not completed in 2010 to be funded in 2011, if necessary. It also includes sustainment of the International Space Station through 2020.

Rolled out as "A New Era of Innovation and Discovery,"

the proposed 2011 budget's highlights include significant and sustained investments in transformative technology development and flagship technology demonstrations to

pursue new approaches to space exploration; enabling U.S. commercial sector spaceflight capabilities; robotic precursor missions to multiple destinations in the solar system; research and development on heavy-lift and propulsion technologies; improvements to the launch complex at the Kennedy Space Center, Fla.; cross-cutting technology development aimed at improving NASA, other government and commercial space capabilities; science and

climate change; green aviation; and education.

For more information about the proposed NASA budget, visit <http://www.nasa.gov/news/budget/index.html>.

Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

"Today we are launching a bold and ambitious new space initiative to enable us to explore new worlds, develop more innovative technologies, foster new industries, increase our understanding of the earth, expand our presence in the solar system, and inspire the next generation of explorers."

*— NASA Administrator
Charles Bolden,
Feb. 1, 2010*

Grisham, Node 3 lead for the Nodes Integration Office. "We've worked with contractors, international partners and several NASA centers to make this a successful project.

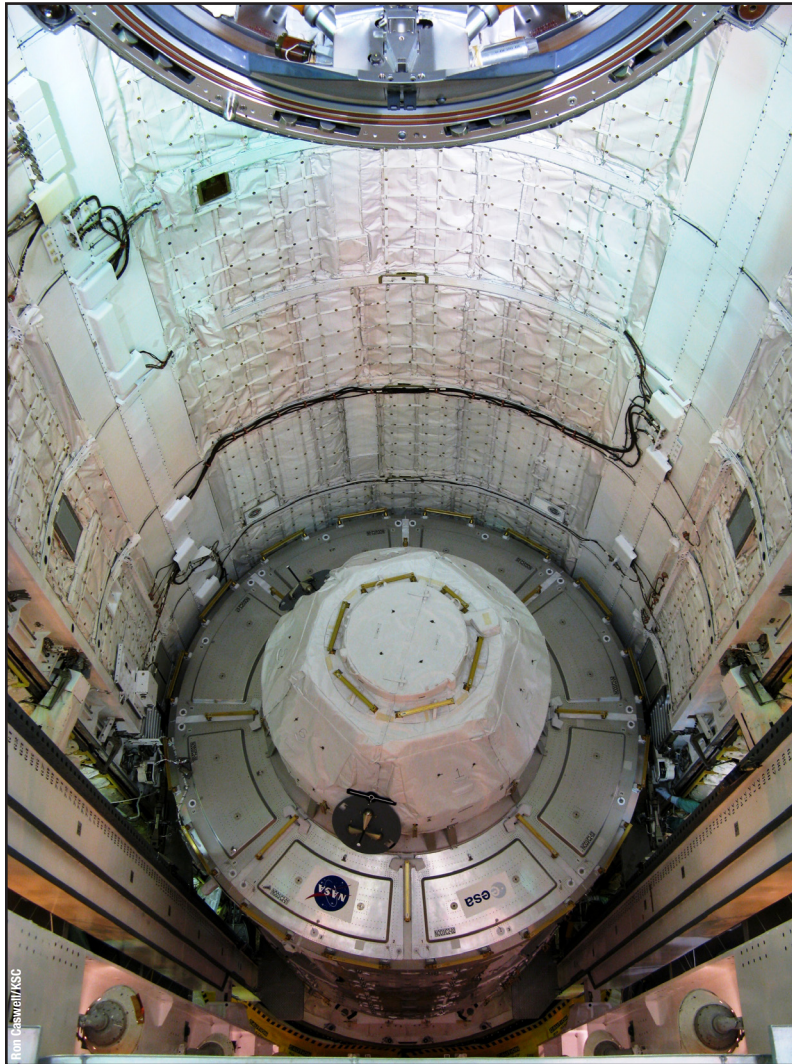
"Tranquility is the final element that will allow the space station to perform as designed," Grisham added. "This new module will complete the habitable elements for the space station and will be home to the most advanced life support systems ever flown in space."

The life support system, housed in the node, includes two Water Recovery System racks and an Oxygen Generation System rack, developed and managed by Marshall engineers. These systems recycle urine and wastewater for crew use and generate oxygen for the crew to breathe.

Tranquility also will host two avionics racks for operation of Node 3, a waste hygiene compartment and the T2 Combined Operational Load Bearing External Resistance Treadmill, or COLBERT, for crew exercise. An Advanced Resistive Exercise Device used to monitor crew resistance training and help prevent loss of muscle mass in low gravity will be delivered and installed.

"This new module will complete the internal pressurized, or habitable, elements for the space station. The equipment it houses is important in increasing the space station crew from three to six members," said Gregg McDaniel, Science & Mission Systems Space Station Vehicle Office manager. "The node will be equipped with the most advanced life support systems ever flown in space."

The Nodes Team also coordinated the development of the mated launch configuration requirements for the



Node 3 with the Cupola shown installed inside Space Shuttle Endeavour's payload bay. A portion of Endeavour's docking adapter can be seen at the top of the photograph. The node is 23 feet long, 14.8 feet in diameter and will weigh almost 40,000 pounds in orbit. Node 3 will be installed on the space station during flight day five.

Cupola, a seven-window robotic observation and control station also being delivered to the space station by shuttle Endeavour. It will be used as a control room for robotics and provide the crew a 360-degree view around the station. The name derives from Italian "cupola," which means dome. The Cupola will attach to Node 3. From the Cupola, designed by the European Space Agency, the crew can perform remote robot arm operations.

After the launch of Endeavour, the Nodes Integration Team will support the Mission Control Center at Johnson. Those activities include providing support during on-orbit operations required to relocate the Cupola from the Node 3 port to the space station and activation activities that include moving

the environmental racks into Node 3.

The installation of the Cupola and Node 3 marks delivery of the last main components on the International Space Station.

"Node 3 has been a great partnership between NASA and the element designers/builders in Italy," said McDaniel. "The launch of Node 3 will be bittersweet for us. We've worked hard to get to this point. We'll still have work to do with on-orbit operations, but Node 3 is the end of Marshall efforts for construction and delivery of major space station elements."

Anderson is a public affairs officer in the Office of Strategic Analysis & Communications. Martel, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Forty honored with Space Flight Awareness awards

Forty Marshall Space Flight Center team members received Space Flight Awareness awards Feb. 2 for their outstanding contributions to the space program. They will participate in a number of events planned in their honor at the Kennedy Space

Center, Fla., on Feb. 5-8, including meeting with NASA's executive management and astronauts, and touring the center. During their visit, the honorees will watch the launch of space shuttle Endeavour on Feb. 7 to the International Space Station.



Tonya L. Archer
*Science & Mission
Systems Office*



Tammy P. Austin
Jacobs



Sean Barnes
Jacobs



Brooke Boen
Schafer Corp.



Eric Bradford
Bastion



John W. Brunson Jr.
Michoud Transition Office



Melissa J. Burk
Jacobs-STS



Kellie D. Craig
Office of Procurement



Danny R. Duke
Jacobs-ERC Inc.



Charles Finnegan
Engineering Directorate



David Flores
SAIC-ARCATA



Clay W.G. Fulcher
Jacobs



Gary G. Genge
Ares Projects



Paul R. Gradl
Engineering Directorate



Gail Murphree
*Grafton
CH2M Hill*



Cynthia S. Grant
Engineering Directorate



James E. Grisham
*Science & Mission
Systems Office*



James R. Hawkins
Engineering Directorate



Umeka High
*Teledyne Brown
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Engineering Directorate

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*Engineering Shuttle
Propulsion Office*



Mark E. Hyder
*Office of Center
Operations*



Sharon H. Ing
*Office of the Chief
Information Officer*



Kevin Kasperitis
*Teledyne Brown
Engineering*



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Colsa



John R. McIntyre
Self & Associates



Linda N. McKelvey
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*Science & Mission
Systems Office*



Stephen Rao
Jacobs



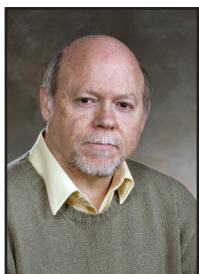
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**Richard "Mike"
Staton**
Colsa



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Shuttle Propulsion Office



Thomas H. Whitt
Engineering Directorate



Angela M. Wise
*Safety & Mission
Assurance Office*

THE FACE OF MISSION SUCCESS IS:

Stacy Counts

*Upper Stage Systems Engineering
& Integration manager, Ares I Upper Stage*



- **Organization:** Ares Projects
- **Joined NASA:** 1991
- **Education:** Bachelor's degree in industrial engineering, Auburn University, 1991; master's degree in engineering management, University of Alabama in Huntsville, 1997
- **Responsibilities:** I manage the systems engineering and integration team, which is responsible for the development of requirements, allocation and verification of Ares hardware, and the definition of both internal and external interfaces. Our team also establishes configuration and data management for products, and leads each major review. Ultimately, we ensure that integration occurs from early requirements development to final closure of verification data pre-flight.
- **Why did you choose this career?** My parents both worked for Marshall prior to retirement, so I grew up surrounded by NASA, and understood the unique capabilities of the organization. I wanted to be a part of the excitement and challenge that – to me – NASA represented.

'A Celebration of Hope'

Marshall, Team Redstone to celebrate Black History Month throughout February

By Rick Smith

Throughout February, the Marshall Space Flight Center work force will join with government and contract personnel across Redstone Arsenal to celebrate Black History Month – anchored by three key events Feb. 10, 22 and 25.

First is a special Lunch & Learn session Feb. 10 at 11 a.m. in Morris Auditorium in Building 4200. Team members are invited to bring their lunches and listen to Ann McNair, director of Marshall's Office of Center Operations, reflect on the history and impact of diversity at the center during its first half-century of operation. Anchoring the event will be an original musical celebration, "Deep Rivers: Power for Life's Journey," with original, unpublished works arranged and performed by Marshall team members Diane Cain and Dennis Lovin, both of Will Technology of Huntsville, supporting Marshall's Organization and Leadership Development Office. They will be accompanied on piano by Lovin's wife Luanne.

On Feb. 22, Team Redstone – the Marshall Center and U.S. Army organizations on Redstone Arsenal – will hold a joint "Black History Celebration" event at 10 a.m. in Bob Jones Auditorium in the Sparkman Center. Concluding the month of events will be a "Donuts, Dialogue & Diversity" gathering Feb. 25 at 8:30 a.m. in the lobby of Building 4200. Dan Schumacher, director of the Office of Strategic Analysis & Communications, will address participants. Watch Inside Marshall and the NASA Marshall Facebook page for further details on these events.

"It's our hope that the entire Marshall Center team will come together to take part in these unique celebrations," said Audrey Robinson, manager of Marshall's Office of Diversity & Equal Opportunity. "It's our goal throughout 2010 not just to highlight our minority team members, but to honor the creativity and dedication of our entire, diverse work force, and to celebrate the results of all its unique contributions to the Marshall Center and to the nation's space program."

For more information on the Marshall Center's Office of Diversity & Equal Opportunity, visit <http://eo.msfc.nasa.gov>.

Smith, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

New asbestos database offers information, monitoring levels of Marshall buildings

By Amie Cotton

The Marshall Space Flight Center has enhanced its asbestos management program by offering a new, online facility database that documents the type, location, quantity and condition of asbestos – a fibrous, crystalline mineral used in building construction from the 1930s to the 1970s, before its harmful properties were identified.

In January, Marshall's Environmental Engineering & Occupational Health Office launched the new database and Web site that includes asbestos locations, information on quantity and condition of the asbestos and air monitoring results for each Marshall building. This information is based on data from a June 2009 facilities asbestos survey.

"The new asbestos information system is designed to maintain a safe and healthy work environment for all Marshall employees," said Jamie Banks, Marshall's manager of industrial hygiene and an employee of Wyle Integrated Science and Engineering of Houston. "It will serve as a living database with dynamic asbestos information and air monitoring results, enabling us to more comprehensively manage asbestos at the center."

The Environmental Engineering & Occupational Health

Office has been actively monitoring asbestos levels at Marshall since 1980. The new database and Web site is available at <http://ais.ndc.nasa.gov/>.

The asbestos survey indicated that among the 240 buildings at Marshall, 110 were identified as having some type of asbestos. Of those 110 buildings, approximately 75 required baseline data to be gathered on airborne asbestos levels. To date, average airborne levels of total fibers (which may or may not contain asbestos) at Marshall were 0.0096 fibers per cubic centimeter – less than 10 percent of the permissible exposure limit of 0.1 fibers per cubic centimeter set by the Occupational Safety and Health Administration, a federal agency that regulates workplace safety and health.

While materials containing asbestos are found throughout the center, Banks said they do not pose a risk to building occupants as long as they remain undisturbed and well managed.

Banks said members of Marshall's Facility Management Office are specially trained to manage asbestos-related materials, and take special safety precautions to ensure the safety of themselves and the Marshall work force when disturbing materials containing asbestos.

Asbestos cannot be identified with the naked eye. Materials containing asbestos are identified through the use of special microscopes. If employees encounter any fibrous material and are concerned it may contain asbestos, Banks recommends they contact the Occupational Health Office at 544-2390.

Cotton, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.

Classified Ads

To submit a classified ad to the Marshall Star, go to Inside Marshall, to "Employee Resources," and click on "Employee Ads — Submit Ad." Ads are limited to 15 words, including contact numbers. No sales pitches. Deadline for the next issue, Feb. 11, is 4:30 p.m. Thursday, Feb. 4.

Miscellaneous

LG cell phone for Verizon service, model VX5300, \$25; Crosman air soft sniper rifle, \$25. 527-8116

32-inch Magnavox LCD TV, no voltage to backlight. 883-7752

F150 factory tubular bed extender, \$45. 325-6000

Kenmore stack washer/dryer, \$300. 536-5132

Maytag Performa dryer, \$75. 457-9126

Three orchestra tickets, BTL's "The Color Purple," Sunday, May 2, 2 p.m. 772-3303

Delta table saw, Delta 12" planner, Jet 6" joiner with extra blades, \$1,100. 656-2951

52-inch Sony projection type TV, \$250. 590-1145

Mahogany colored writing desk with keyboard drawer, hutch and chair, \$150. 479-4926

18-carat white gold diamond engagement ring, radiant cut, \$2,300 obo. 710-3527

40-inch professional series Frigidaire double oven electric range, convection, SC, stainless, \$1,100. 679-4459

Loft bed with trundle, mattresses, stairs, \$750. 425-1914

Smith & Wesson model 22A LR Target, \$195. 851-7406

Entertainment center, \$150; 27" Toshiba TV, \$50; Wii Guitar Hero 3 game, guitar controller, \$30. 527-3486

Prom dress, size 2, Flirt by Maggie Sottero, aqua, call for pictures, \$150. 990-3561

Set of 4 35"x15"x12.50" tires, aluminum rims for Toyota/Ford, \$300. 321-543-5950

La-Z-Boy burgundy oversized recliner; extra-large stainless steel double bowl kitchen sink with gooseneck faucet. 461-4196

Kitchenaid dishwasher, stainless interior, \$100; OTR microwave, \$100; Whirlpool standalone range, \$50; all, \$200. 309-0077

Drop leaf table, four chairs, antique, pictures: <http://jscottm.home.mchsi.com/table.htm>, \$100. 828-9651

Vehicles

2008 Toyota Tundra, four door, 5.7L V8, 2WD, V8, bedliner, 14k miles, \$20,500. 975-2742

2007 Little Guy 5-wide Retro Teardrop camper, AC, heat, \$3,400. 348-7146

2005 Honda Accord Hybrid, 255HP, navy, voice controls, leather, full warranty, new tires, \$16,400. 464-9871

2004 Honda Accord EX sedan, 4-cylinder, loaded, automatic, blue-gray, 65k miles, \$10,800. 883-1096

2004 Volkswagen Jetta, 1.9 L turbo diesel, auto, roof rack, 112k miles, \$7,450. 572-1867

2004 Harley-Davidson XL 1200C, custom windshield, backrest vance, hines pipes, 8k miles \$5,500. 647-1710

1998 Stingray RS180, new 140HP, Bowrider, Bimini covers. 640-6427

1993 White Olds Cutlass, red cloth interior, 95k miles,

\$1,600. 797-2545 after 5 p.m.

1992 GMC white diesel pickup truck, 150k miles, \$3,500. 379-4010

1990 red Miata, recent paint/tires/rims/top, needs hood/windshield/headlight, 145k miles, runs great, \$1,400. 658-4733

1987 Toyota MR-2, automatic, T-tops, \$2,500. 325-3696

1985 Ford F-150, 4X4, SW-base, hunter green, tan interior, chrome wheels, new engine/tires, \$2,950. 259-1523

14-foot Alumacraft fishing boat, trailer, \$1,100. 590-1145

6x6 Camo M35A2 Army truck, M105A2 trailer, lockout hubs, winch, extras, \$5,300. 508-1558

Wanted

Log cabin or barns for disassembly and relocation. 509-7907

Houses to clean; elderly to assist. 651-4723

Carpoolers from Cullman area to Redstone Arsenal. 205-602-6868

Houses/offices to clean, available evenings and weekends, if no answer, please leave a message. 777-8595

Used youth/teen soccer jerseys, shorts or shoes for mission trip to Central America. 828-1234

Electrical work to do, wiring houses, detached garage, yardlights, adding/removing lights, plugs, switches. 468-8906

Bed Donation, one each, king, black, wrought iron; queen, redish-brown, wooden; queen, wooden, futon. 631-8915

Free

1-year-old Beagle mix, 3 1/2-year-old black Lab, both spayed, all immunizations. 303-0124

Marshall Building 4601 attains LEED® Gold certification

New Engineering Complex wins another 'green' accolade

By Rick Smith

The U.S. Green Building Council for Leadership in Energy and Environmental Design has awarded its LEED® Gold certification to Building 4601 at the Marshall Space Flight Center – recognizing the standard of excellence set by the state-of-the-art, environmentally friendly facility.

The building, which officially opened in June 2009, was designed and built according to efficient energy and water principles, making it eligible for registration with the building council.

LEED certification is a voluntary, consensus-based national standard for developing high-performance, sustainable structures.

The Marshall Center previously earned LEED Silver Certification for Building 4600, the first facility in the engineering complex, which opened in 2005. It was the first LEED-certified facility built by NASA.

Nelson Olinger, project manager for facilities design and construction in Marshall's Facilities Engineering

Office, said the process of designing and constructing a truly "green" engineering facility required an extensive level of planning and attention throughout the building design and construction process.

"Certification hinged on the environmental 'footprint' of the facility, as well as the reduced energy consumption of the building once it was completed," Olinger said. "We also were assessed on how well we used and cared for the land on which the property sits, and on health and safety qualities inside the structure: quality of air, use of natural light, noise levels and ergonomics.

"We paid strict attention to environmental issues even after the building itself was completed," he added. "We carefully selected the materials we used inside – down to the carpets, paint and furniture. We even use LEED-compliant cleaning supplies."

Building 4601 is the second completed facility in the Marshall Center's engineering complex, situated southwest of the intersection of Rideout and Martin roads. The

building primarily is home to engineers in two Marshall organizations: the Materials and Processes Laboratory and the Spacecraft and Vehicle Systems Department. Researchers there are developing next-generation launch vehicle technologies to prepare the way for future space exploration

missions. They also support NASA's far-reaching science missions, space shuttle propulsion systems and hardware and science aboard the International Space Station.

Building 4602, now under construction, is scheduled for completion and will be submitted for LEED certification in November 2010.

The engineering complex is part of the center's planned Capital Improvement Program. The construction project is managed by the Facilities Engineering Office, part of Marshall's Office of Center Operations.

For more information about the Facilities Engineering Office and its future building construction plans, visit <http://co.msfc.nasa.gov/ad20>.

Smith, an AI Signal Research Inc. employee, supports the Office of Strategic Analysis & Communications.



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